

著作目録（駒嶺穆）

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駒 嶺 穆 教 授 略 歴

生年月日 昭和4年6月22日生
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学 歴

昭和28年3月 東京大学理学部生物学科卒業
昭和30年3月 東京大学大学院生物系研究科修士課程修了
(東京大学理学修士)
昭和33年12月 東京大学大学院生物系研究科博士課程修了
(東京大学理学博士)
昭和34年4月 フィンランドヘルシンキ生化学研究所研究員として留学
(昭和35年7月まで)

職 歴

昭和36年4月 東京大学理学部助手
昭和41年4月 同 講師
昭和46年11月 同 助教授
昭和59年4月 東北大学理学部教授

学会ならびに社会における活動

- ・日本植物学会会員
- ・日本植物学会評議員(東京地区, 昭和52-53年, 54-55年, 58-59年)
- ・日本植物学会評議員(東北地区, 昭和60-61年)
- ・日本植物学会評議員常任評議員(東北地区, 昭和62-63年, 平成3-4年)
- ・日本植物学会幹事長(昭和48-49年)
- ・日本植物学会庶務幹事(昭和36-39年)

- 日本植物学会編集委員（昭和60－61年）
- 日本植物学会生物科学ニユース編集実行委員（昭和51－52年）
- 日本植物学会東北支部長（昭和61－平成3年）
- 日本植物組織培養学会会員
- 日本植物組織培養学会評議員（昭和57－平成3年）
- 日本植物組織培養学会編集委員長（昭和58－59年）
- 日本植物組織培養学会幹事長（昭和59－61年）
- 日本植物組織培養学会会長（平成4年～現在）
- 細胞生物学会会員
- 細胞生物学会評議員（昭和63年～現在）
- 日本発生物学会会員
- 日本発生物学会編集委員（平成元年～現在）
- 日本植物生理学会会員
- 日本植物生理学会幹事（昭和41－42年）
- 日本植物生理学会評議員（昭和57－58年，昭和63－平成3年）
- 日本植物生理学会常任評議員（昭和59－60年）
- 日本植物生理学会 PCP 編集委員（昭和55－58年）
- 日本植物生理学会 PCP 編集実行委員（昭和62－平成2年）
- 国際植物組織培養学会会員
- 国際植物組織培養学会評議員（昭和58－61年）
- 国際植物組織培養学会常任評議員（昭和62－平成2年）
- 第5回国際植物組織培養会議事務局長（昭和54－57年）
- 第6，7，8回国際植物組織培養会議外国人顧問（昭和59－現在）
- 日本学術振興会特別研究員等審査会委員（平成元－3年3月）
- 日本学術振興会国際生物学賞委員会審査委員会委員（平成3年3月－12月）
- 日本学術会議植物科学研究連絡委員会委員（昭和63年10月－現在）
- Development, Growth and Differentiation 編集委員
- Prant Cell, Tissue and Organ Culture 編集委員
- Oxford Survey of Plant Molecular and Cell Biology 編集委員
- The Plant Journal 編集委員
- Plant Cell Reports 編集委員

著 作 目 録

著書，共著書

1. 植物生理学講座 2 培養細胞系の代謝（朝倉書店，1972）
2. 植物組織培養（基礎編）代謝（朝倉書店，1972）
3. 新植物組織培養 代謝生理（朝倉書店，1979）
4. 植物組織細胞培養—その実際と展望—（原田 宏と共著，理工学社，1979）
5. 植物生理学 8 環境情報，植物培養細胞系における物質的環境情報とその発現（朝倉書店，1982）
6. 植物組織培養の技術—液体培養法（藤村達人と共著，朝倉書店，1983）
7. 生物学の世界（朝倉書店，1985）
8. 植物バイオテクノロジー事典（朝倉書店，1990）
9. 植物全能性の分子生物学（朝倉書店，1990）

論 文, 共 著 論 文

1. Stizolobic acid: a new amino-acid in *Stizolobium hassjoo*. (S. Hattori and A. Komamine)
Nature, **183**, 1116-1117 (1959)
2. Amino acids in honey. (A. Komamine)
Suomen Kemistilehti, **B33**, 185-187 (1960)
3. On the structure of the new neutral amino acid A isolated from *Lactarius helvus*. (A. Komamine and A.I. Virtanen)
Acta Chemica Scandinavica, **13**, 2141 (1960)
4. Metabolism of aromatic amino acids in plants I. On 3,4-dihydroxyphenylalanine in *Stizolobium hassjoo*. (A. Komamine)
Bot. Mag. (Tokyo), **75**, 228-236 (1962)
5. Physiological studies on the outgrowth of the epicotyl in *Stizolobium hassjoo*. I. Properties of the outgrowth. (M. Sato, M. Shimokoriyama and A. Komamine).
Bot. Mag. (Tokyo), **76**, 130-137 (1963)
6. Physiological studies on the outgrowth of the epicotyl in *Stizolobium hassjoo*. II. Its IAA metabolism with special reference to the activity in IAA destruction. (M. Sato, M. Shimokoriyama and A. Komamine)
Bot. Mag. (Tokyo), **76**, 279-285 (1963)
7. Structure of stizolobic acid and stizolobinic acid; two novel amino acids in *Stizolobium hassjoo*. (S. Senoh, A. Komamine et al.)
Tetrahedron Letters, No. **46**, 3431-3436 (1964)
8. Syntheses of DL-stizolobinic acid, DL-stezolobic acid and DL- β -(6-carboxy- α' -pyron-5-yl) alanine. (S. Senoh, A. Komamine et al.)
Tetrahedron Letters, No. **46**, 3437-3444 (1964)
9. Physiological studies on the outgrowth of the epicotyl in *Stizolobium hassjoo*. III. Studies on glucose catabolism in the outgrowth and the epicotyl. (Y. Morohashi, A. Komamine et al.)
Bot. Mag. (Tokyo), **78**, 43-49 (1965)
10. Physiological studies on the outgrowth of the epicotyl in *Stizolobium hassjoo*. IV. Chemical composition of the callus and the epicotyl, and distribution pattern of radioactivity of glucose supplied to them. (A. Komamine, Y. Morohashi et al.)
J. Fac. Sci., Univ. Tokyo, Sec.III, Vol. IX, Parts 6-9, 197-217 (1966)

11. Anatomical studies on the epicotyl of etiolated seedlings of *Stizolobium hassjoo*. (N. Hara and A. Komamine)
Bot. Mag.(Tokyo), **79**, 749-758 (1966).
12. α -Pyrone-6-carboxylic acid derivatives. IV. Optical resolution and configuration of stizolobic acid, stizolobinic acid and β - (6-carboxy- α' -pyron-5yl) alanine lactam. (S. Senoh, A. Komamine et al.)
Bull. Chem. Soc. Japan, **40**, 379-384 (1967)
13. Respiratory metabolism in the phloem, xylem and cambium of carrot root. (Y. Morohashi, A. Komamine and M. Shimokoriyama)
Plant & Cell Physiology, **8**, 423-432 (1967)
14. Physiological studies on the outgrowth of the epicotyl in *Stizolobium hassjoo*. V. Changes in respiratory metabolism in the region of etiolated epicotyl. (Y. Morohashi, A. Komamine and M. Shimokoriyama)
Bot. Mag.(Tokyo), **81**, 362-370 (1968)
15. Studies on the changes in respiratory metabolism in the cut region of etiolated *Vicia fada* epicotyl. (Y. Morohashi, A. Komamine and M. Shimokoriyama)
Bot. Mag.(Tokyo), **81**, 434-444 (1968)
16. Physiological studies on the outgrowth of the epicotyl in *Stizolobium hassjoo*. VI. Changes in the IAA content and the activity of IAA destruction in the decapitated epicotyl of etiolated *Stizolobium* and *Vicia* seedlings. (Y. Morohashi, A. Komamine and M. Shimokoriyama)
Bot. Mag.(Tokyo), **82**, 110-120 (1969)
17. Changes in respiratory metabolism in tissue cultures of carrot root. (A. Komamine, Y. Morohashi and M. Shimokoriyama)
Plant & Cell Physiology, **10**, 411-423 (1969)
18. Vessel element formation in cultured carrot-root phloem slices. (K.Mizuno, A. Komamine and M. Shimokoriyama)
Plant & Cell Physiology, **12**, 823-830 (1971)
19. Phosphofructokinase of cultured and aged carrot-root slices. (H. Ashihara, A. Komamine and M. Shimokoriyama)
Phytochemistry, **11**, 2717-2721 (1972)
20. The mechanism of changes in respiratory activity during callus formation in carrot root slices cultured in vitro. (A. Komamine, T. Shimizu et al.)
Plant & Cell Physiol., **13**, 821-829 (1972)

21. Isolation of a substance inducing vessel element formation in cultured carrot root slices. (K. Mizuno, A. Komamine and M. Shimokoriyama)
 Proceedings of the 8th International Conference of Plant Growth Substances., p.111-118 (1973)
22. Glucose catabolism during aging and differentiation in hypocotyls of *Phaseolus mungo* seedlings. (H. Ashihara, A. Komamine and M. Shimokoriyama)
 Bot. Mag.(Tokyo), **87**, 121-131 (1974)
23. Enzyme and metabolite profiles of the pentose phosphate pathway in hypocotyls of *Phaseolus mungo* seedlings. (H. Ashihara and A. Komamine)
 Plant Sci. Letters, **2**, 331-337 (1974)
24. Regulation of the activities of some enzymes of the pentose phosphate pathway in *Phaseolus Mungo*. (H. Ashihara and A. Komamine)
 Z. Pflanzenphysiol., **74**, 130-142 (1974)
25. Regulatory properties of plant phosphoribosylpyrophosphate synthetase. (H. Ashihara and A. Komamine)
 Plant Sci. Letters, **2**, 119-123 (1974)
26. The function of the pentose phosphate pathway in *Phaseolus mungo* hypocotyls. (H. Ashihara and A. Komamine)
 Phytochemistry, **14**, 95-98 (1975)
27. Changes in some enzyme activities and respiration in the early stage of callus formation in a carrot-root tissue culture. (A. Komamine and T. Shimizu)
 Physiol. Plant., **33**, 47-52 (1975)
28. Effects of growth regulators on embryogenesis in a carrot suspension culture. (T. Fujimura and A. Komamine)
 Plant Sci. Letters, **5**, 359-364 (1975)
29. Biosynthesis of stizolobinic acid and stizolobic acid in the etiolated seedlings of *Stizolobium hassjoo*. (K. Saito, A. Komamine and S. Senoh)
 Z. Naturforsch., **30c**, 659-662 (1975)
30. Regulatory properties of 6-phosphogluconate dehydrogenase from higher plants. (H. Ashihara and A. Komamine)
 Int. J. Biochem., **6**, 667-673 (1975)
31. Characterization and regulatory properties of glucose-6-phosphate dehydrogenase from black gram (*Phaseolus mungo*). (H. Ashihara and A. Komamine)
 Physiol. Plant., **36**, 52-59 (1976)

32. Further studies on biosynthesis of stizolobinic acid and stizolobic acid in the etiolated seedlings of *Stizolobium hassjoo*. (K. Saito, A. Komamine and S. Senoh)
Z. Naturforsch., **31c**, 15-17 (1976)
33. An enzyme system (s) catalyzing the conversion of dihydroxy-phenylalanine into stizolobinic acid and stizolobic acid from etiolated seedlings of *Stizolobium hassjoo*. (K. Saito and A. Komamine)
Eur. J. Biochem., **68**, 237-243 (1976)
34. 高等植物細胞の代謝研究の実験系としての培養細胞系 (駒嶺 穆)
化学と生物, 15, 684-693 (1977)
35. Changes in metabolite levels during growth of *Acer pseudoplatanus* (sycamore) cells in batch suspension culture. (T. Shimizu, A. Clifton, A. Komamine et al.)
Physiol. Plant., **40**, 125-129 (1977)
36. Isolation and identification of the substances inducing tracheary element formation in the carrot-root slices culture. (K. Mizuno and A. Komamine)
Planta **138**, 59-62 (1978)
37. Changes in the proportion of two aspartokinases in carrot root tissue in response to in vitro culture. (K. Sakano and A. Komamine)
Plant Physiol., **61**, 115-118 (1978)
38. Changes in the composition of cell wall polysaccharides of suspension-cultured *Vinca rosea* cells during culture. (Y. Takeuchi and A. Komamine)
Physiol. Plant., **42**, 21-28 (1978)
39. Biosynthesis of stizolobinic acid and stizolobic acid. Stizolobinic acid synthase and stizolobic acid synthase, new enzymes which catalyze the reaction sequences leading to the formation of stizolobinic acid and stizolobic acid from 3,4-dihydroxyphenylalanine in *Stizolobium hassjoo*. (K. Saito and A. Komamine)
Eur. J. Biochem., **82**, 385-392 (1978)
40. Composition of the cell wall formed by protoplasts isolated from the suspension culture of *Vinca rosea*. (Y. Takeuchi and A. Komamine)
Planta, **140**, 227-232 (1978)
41. Biosynthesis of stizolobic and stizolobinic acids in *Amanita pantherina*. (K. Saito, A. Komamine and S. Hatanaka)
Z. Naturforsch., **33c**, 793-795 (1978)

42. Metabolism in synchronous growth and differentiation in plant tissue and cell cultures. (A. Komamine, T. Morigaki and T. Fujimura)
Frontiers of Plant Tissue Culture 1978 p.159-168 (1978)
43. A possible role of cyclic AMP on tracheary element formation in cultured carrot-root slice. (K. Mizuno and A. Komamine)
Bot. Mag.(Tokyo), **91**, 213-219 (1978)
44. Synchronization of somatic embryogenesis in a carrot cell suspension culture. (T. Fujimura and A. Komamine)
Plant Physiol., **64**, 162-164 (1979)
45. Involvement of endogenous auxin in somatic embryogenesis in a carrot cell suspension culture. (T. Fujimura and A. Komamine)
Z. Pflanzenphysiol., **95**, 13-19 (1979)
46. Establishment of an experimental system for the study of tracheary element differentiation from single cells isolated from the mesophyll of *Zinnia elegans*. (H. Fukuda and A. Komamine)
Plant Physiol., **65**, 57-60 (1980)
47. Direct evidence for cytodifferentiation to tracheary elements without intervening mitosis in a culture of single cells isolated from the mesophyll of *Zinnia elegans*. (H. Fukuda and A. Komamine)
Plant Physiol., **65**, 61-64 (1980)
48. Changes in the activities of the pentose phosphate pathway and pyrimidine nucleotide biosynthesis during the growth of *Vinca rosea* cells in suspension culture. (I. Kanamori, H. Ashihara and A. Komamine)
Z. Pflanzenphysiol., **93**, 437-448 (1979)
49. Subcellular distribution and activity of enzymes involved in uridine-5'-monophosphate synthesis in *Vinca rosea* cells. (I. Kanamori, H. Ashihara and A. Komamine)
Z. Pflanzenphysiol., **96**, 7-16 (1980)
50. Turnover of cell wall polysaccharides of a *Vinca rosea* suspension culture. I. Synthesis and degradation of cell wall components. (Y. Takeuchi and A. Komamine)
Physiol. Plant., **48**, 271-277 (1980)
51. The serial observation of embryogenesis in a carrot cell suspension culture. (T. Fujimura and A. Komamine)
New Phytologist, **86**, 213-218 (1980)

52. Turnover of cell wall polysaccharides of a *Vinca rosea* suspension culture. II. Radio gas chromatographical analyses. (Y. Takeuchi, A. Komamine et al.)
Physiol. Plant., **48**, 536-541 (1980)
53. Aspects of DNA, RNA and protein synthesis during somatic embryogenesis in a carrot cell suspension culture. (T. Fujimura, A. Komamine and H. Matsumoto)
Physiol. Plant., **49**, 255-260 (1980)
54. Mode of action of 2,4-D and zeatin on somatic embryogenesis in a carrot cell suspension culture. (T. Fujimura and A. Komamine)
Z. Pflanzenphysiol., **99**, 1-8 (1980)
55. Turnover of cell wall polysaccharides of a *Vinca rosea* suspension culture. III. Turnover of arabinogalactan. (Y. Takeuchi and A. Komamine)
Physiol. Plant., **50**, 113-118 (1980)
56. Pyrimidine nucleotide biosynthesis in *Vinca rosea* cells. Changes in the activity of the *de novo* and salvage pathways during growth in a suspension culture. (I. Kanamori, H. Ashihara and A. Komamine)
J. Exp. Bot. **32**, 69-78 (1981)
57. Relationship between tracheary element differentiation and DNA synthesis in single cells isolated from the mesophyll of *Zinnia elegans*. — Analysis by inhibitors of DNA synthesis. (H. Fukuda and A. Komamine)
Plant & Cell Physiol., **22** (1), 41-49 (1981)
58. Changes in chromosomal proteins during early stages of synchronized embryogenesis in a carrot cell suspension culture. (T. Fujimura, A. Komamine and H. Matsumoto)
Z. Pflanzenphysiol., **102** (4), 293-298 (1981)
59. Relationship between tracheary element differentiation and the cell cycle in single cells isolated from the mesophyll of *Zinnia elegans*. (H. Fukuda and A. Komamine)
Physiol. Plant., **52**, 423-430 (1981)
60. Mechanisms of suppression of DOPA accumulation in a callus culture of *Stizolobium hassjoo*. (H. Obata-Sasamoto, N. Nishi and A. Komamine)
Plant & Cell Physiol., **22** (5), 827-835 (1981)
61. 植物細胞の全能性 (駒嶺 穆)
組織培養, 8 (9), 317-318 (1982)
62. 植物組織培養研究の国際的動向 (駒嶺 穆)
組織培養, 8 (13), 469 (1982)

63. 植物培養細胞における二次代謝系の発現誘導 (小関良宏, 駒嶺 穆)
化学と生物, 20 (10), 683-686 (1982)
64. Conversion of DOPA to tetrahydroisoquinolines and stizolobic acid in a callus culture of *Stizolobium hassjoo*. (K.Saito, H. Obata-Sasamoto, A. Komamine et al.)
Phytochemistry, **21**, 474-476 (1982)
65. Induction of anthocyanin synthesis in relation to embryogenesis in a carrot suspension culture; correlation of metabolic differentiation with morphological differentiation. (Y. Ozeki and A. Komamine)
Physiol. Plant., **53**, 570-577 (1981)
66. Pyrimidine nucleotide biosynthesis during somatic embryogenesis in a carrot cell suspension culture. (H. Ashihara, T. Fujimura and A. Komamine)
Z. Pflanzenphysiol., **104** (2), 129-137 (1981)
67. Biosynthesis of 3-carboxy-6, 7-dihydroxy-1, 2, 3, 4-tetrahydroisoquinoline and 1-methyl-3-carboxy-6, 7-dihydroxy-1, 2, 3, 4-tetrahydroisoquinoline in a callus culture of *Stizolobium hassjoo*. (H. Obata-Sasamoto, A. Komamine and K. Saito)
Z. Naturforsch., **36c**, 921-924 (1981)
68. Glucans in the cell walls regenerated from *Vinca rosea* protoplasts. (Y. Takeuchi, A. Komamine)
Plant & Cell Physiol., **22** (8), 1585-1594 (1981)
69. Effects of culture conditions on cell division and composition of regenerated cell walls in *Vinca rosea* protoplasts. (Y. Takeuchi and A. Komamine)
Plant & Cell Physiol., **23** (2), 249-255 (1982)
70. Isolation of protoplasts from somatic embryos of carrot. (K. Nomura, T. Nitta, A. Komamine et al.)
Plant Cell, Tissue and Organ Culture, **1** (4), 211-219 (1982)
71. Lignin Synthesis and its related enzymes as markers of tracheary element differentiation in single cells isolated from the mesophyll of *Zinnia elegans*. (H. Fukuda and A. Komamine)
Planta, **155**, 423-430 (1982)
72. Dynamic aspects of cell walls during the cell cycle in a synchronous culture of *Vinca rosea* L. (S. Amino and A. Komamine)
Plant Tissue Culture 1982, 65-66 (1982)

73. Biochemical mechanism of cytodifferentiation. (A. Komamine and H. Fukuda)
Plant Tissue Culture 1982, 91-92 (1982)
74. Relationship between cytodifferentiation and the cell cycle. (H. Fukuda and A. Komamine)
Plant Tissue Culture 1982, 97-98 (1982)
75. Molecular aspects of somatic embryogenesis in a synchronous system. (T. Fujimura and A. Komamine)
Plant Tissue Culture 1982, 105-106 (1982)
76. Suppression mechanism of DOPA accumulation in *Stizolobium* callus. (H. Obata-Sasamoto and A. Komamine)
Plant Tissue Culture 1982, 345-346 (1982)
77. Induction of anthocyanin synthesis in a carrot suspension culture. -- Correlation of metabolic differentiation with morphological differentiation. (Y. Ozeki and A. Komamine)
Plant Tissue Culture 1982, 355-356 (1982)
78. Isolation and characterization of protoplasts from carrot somatic embryos. (K. Nomura and A. Komamine)
Plant Tissue Culture 1982, 587-588 (1982)
79. Effect of culture conditions on DOPA accumulation in a callus culture of *Stizolobium hassjoo*. (H. Obata-Sasamoto and A. Komamine)
Planta Medica, **49**, 120-123 (1983)
80. Changes in the synthesis of RNA and protein during tracheary element differentiation in single cells isolated from the mesophyll of *Zinnia elegans*. (H. Fukuda and A. Komamine)
Plant & Cell Physiol., **24** (4), 603-614 (1983)
81. Fractionation of cultured cells. (T. Fujimura and A. Komamine)
Cell Culture and Somatic Cell Genetics of Plants Vol.1, 159-166 (1984)
82. Synchrony induced by double phosphate starvation in a suspension culture of *Catharanthus roseus*. (S. Amino, T. Fujimura and A. Komamine)
Physiol. Plant., **59**, 393-396 (1983)
83. Changes in peroxidase isoenzyme patterns during tracheary element differentiation in a culture of single cells isolated from mesophyll of *Zinnia elegans*. (H. Masuda, H. Fukuda and A. Komamine)
Z. Pflanzenphysiol., **112**, 417-426 (1983)
84. 植物のバイオテクノロジーと計測 (駒嶺 穆)
計画と制御, 23, 751-758 (1984)

85. 植物組織培養とファインケミカルズ (小関良宏, 駒嶺 穆)
シーエムシー, 54, 99-111 (1984)
86. Changes in cell wall constituents during the cell cycle in a synchronous culture of *Catharanthus roseus*. (S. Amino, Y. Takeuchi and A. Komamine)
Physiol. Plant., **60**, 326-332 (1984)
87. Changes in cell wall polysaccharides during elongation in a 2,4-D free medium in a carrot suspension culture. (H. Masuda, Y. Ozeki, A. Komamine et al.)
Physiol. Plant., **62**, 65-72 (1984)
88. 培養細胞系における植物のバイオテクノロジー (網野真一, 駒嶺 穆)
生化学, 50 (4), 281-286 (1985)
89. Changes in enzyme activities involved in formation and interconversion of UDP-sugars during the cell cycle in a synchronous culture of *Catharanthus roseus*. (S. Amino, Y. Takeuchi and A. Komamine)
Physiol. Plant., **64**, 111-117 (1985)
90. Effects of inoculum density, zeatin and sucrose on anthocyanin accumulation in a carrot suspension culture. (Y. Ozeki and A. Komamine)
Plant Cell, Tissue and Organ Culture, **5**, 45-53 (1985)
91. Changes in synthetic activity of cell walls during the cell cycle in a synchronous culture of *Catharanthus roseus*. (S. Amino, Y. Takeuchi and A. Komamine)
Physiol. Plant., **64**, 202-206 (1985)
92. Cytodifferentiation. Cell culture and somatic cell genetics of Plants. (H. Fukuda and A. Komamine)
(Academic Press), (1985) Vol.2.
93. Changes in intracellular UDP-sugar levels during the cell cycle in a synchronous culture of *Catharanthus roseus*. (S. Amino, Y. Takeuchi and A. Komamine)
Physiol. Plant., **64** (2), 197-201 (1985)
94. Turnover of cell wall polysaccharides during the cell cycle in a synchronous culture of *Catharanthus roseus*. (S. Amino and A. Komamine)
Plant & Cell Physiol., **26** (4), 745-751 (1985)
95. Purification and some properties of chalcone synthase from a carrot suspension culture induced for anthocyanin synthesis and preparation of its specific antiserum. (Y. Ozeki, K. Sakano, A. Komamine et al.)
J. Biochem., **98**, 9-17 (1985)

96. Changes in the activities of various glycosidases during carrot cell elongation in a 2, 4-D-free medium. (H. Masuda, Y. Ozeki, A. Komamine et al.)
Plant & Cell Physiol., **26** (6), 243-253 (1985)
97. Induction of anthocyanin synthesis in relation to embryogenesis in a carrot suspension culture - a model system for the study of expression and repression of secondary metabolism. (Y. Ozeki and A. Komamine)
Primary and Secondary Metabolism of Plant Cell Cultures, (ed. by Neumann et al.), Springer-Verlag, Berlin, S.99-106 (1985)
98. Changes in activities of enzymes involved in general phenylpropanoid metabolism during the induction and reduction of anthocyanin synthesis in a carrot suspension culture as regulated by 2,4-D. (Y. Ozeki and A. Komamine)
Plant & Cell Physiol., **26** (5), 903-911 (1985)
99. Identification and isolation of single cells that produce somatic embryos at a high frequency in a carrot suspension culture. (K. Nomura and A. Komamine)
Plant Physiol., **79**: 988-991 (1985)
100. Changes in glucan synthase activities during the cell cycle in a synchronous culture of *Catharanthus roseus*. (S. Amino, T. Yoshihisa and A. Komamine)
Physiol. Plant., **65** (1), 67-71 (1985)
101. Physiological and biochemical aspects of somatic embryogenesis from single cells. (K. Nomura and A. Komamine)
Somatic Embryogenesis IPRA, 1-5 (1985)
102. 植物の同調培養系と細胞周期 (網野真一, 赤田咲子, 駒嶺 穆他)
植物組織培養, 3 (1), 9-15 (1986)
103. 植物の培養細胞系における細胞工学 (野村港二, 駒嶺 穆)
日本醸造協会雑誌, 81, 21-28 (1986)
104. 培養細胞系における植物のバイオテクノロジー (網野真一, 駒嶺 穆)
生化学, 58 (4), 281-286 (1986)
105. Embryogenesis from microinjected single cells in a carrot cell suspension culture. (K. Nomura and A. Komamine)
Plant Science, **44**, 53-58 (1986)
106. Effects of nutrient limitation and γ -irradiation on tracheary element differentiation and cell division in single mesophyll cell of *Zinnia elegans*. (M. Sugiyama, H. Fukuda and A. Komamine)
Plant & Cell Physiol., **27** (4), 601-606 (1986)

107. Polarized DNA synthesis and cell division in cell clusters during somatic embryogenesis from single carrot cells. (K. Nomura and A. Komamine)
New Phytologist, **104**, 25-32 (1986)
108. Growth related accumulation of betacyanin in suspension cultures of *Phytolacca americana*. (M. Sakuta, T. Takagi and A. Komamine)
J. Plant Physiol., **125**, 337-343 (1986)
109. *In situ* hybridization on tissue sections. (K. Nomura and A. Komamine)
Plant Tissue Culture Letters **3** (2), 92-93 (1986)
110. Somatic embryogenesis in plant cultured cells. (K. Nomura and A. Komamine)
Development Growth and Differentiation, **28**, 511-517 (1986)
111. Effects of growth regulators on the induction of anthocyanin synthesis in carrot suspension cultures. (Y. Ozeki and A. Komamine)
Plant & Cell Physiol., **27** (7), 1361-1368 (1986)
112. 細胞分化誘導解析法 (野村港二, 杉山宗隆, 駒嶺 穆)
蛋白質核酸酵素, **30**, 124-130 (1987)
113. 植物のマイクロインジェクション (野村港二, 駒嶺 穆)
組織培養, **13** (8), 256-261 (1987)
114. Molecular mechanisms of somatic embryogenesis. (K. Nomura and A. Komamine)
Oxford Surveys of Plant Molecular and Cell Biology, **3**, 457-465 (1987)
115. Effect of inhibitors of ADP-ribosyltransferase on the differentiation of tracheary elements from isolated mesophyll cells of *Zinnia elegans*. (M. Sugiyama and A. Komamine)
Plant & Cell Physiol., **28** (3), 541-544 (1987)
116. Flow cytometric analysis of the cell cycle in synchronous culture of *Catharanthus roseus*. (S. Ando, H. Kodama, A. Komamine et al.)
Agric. Biol. Chem., **51** (5), 1443-1445 (1987)
117. Effects of sucrose on betacyanin accumulation and growth in suspension cultures of *Phytolacca americana*. (M. Sakuta, T. Takagi and A. Komamine)
Physiol. Plant., **71**, 455-458 (1987)
118. Effects of nitrogen source on betacyanin accumulation and growth in suspension cultures of *Phytolacca americana*. (M. Sakuta, T. Takagi and A. Komamine)
Physiol. Plant., **71**, 459-463 (1987)

119. Cell growth and accumulation of secondary metabolites. (M. Sakuta and A. Komamine)
Cell Culture and Somatic Cell Genetics of Plants, **4**, 97-114 (1987)
120. Relationship between DNA synthesis and cytodifferentiation to tracheary elements. (M. Sugiyama and A. Komamine)
Oxford Surveys of Plant Molecular and Cell Biology **4**, 343-346 (1987)
121. 植物培養細胞系における有用物質生産の現状と展望 (作田正明, 駒嶺 穆)
遺伝, **1**, 94-102 (1988)
122. Secondary cell wall formation: Changes in cell wall constituents during the differentiation of isolated mesophyll cells of *Zinnia elegans* to tracheary elements. (E. Ingold, M. Sugiyama and A. Komamine)
Plant & Cell Physiol. **29** (2), 295-303 (1988)
123. Membrane potential of cultured carrot cells in relation to the synthesis of anthocyanin and embryogenesis. (J. Takeda, M. Senda, A. Komamine et al.)
Plant & Cell Physiol. **29** (5), 817-824
124. Regulation and gene expression in the cell cycle of higher plants. (H. Kodama and A. Komamine)
Oxford Surveys of Plant Molecular and Cell Biology. **5**, 185-193 (1988)
125. L-DOPA production in plant cell cultures. (S. Teramoto and A. Komamine)
In: Biotechnology in Agriculture and Forestry vol.4, Medical and Aromatic Plants I (ed. by Bajaj), Springer Verlag, 209-224 (1988)
126. 細胞分化と DNA 合成 (杉山宗隆, 駒嶺 穆)
組織培養, **15** (1), 2-6 (1989)
127. 高等植物同調培養細胞系による細胞周期の解析 (児玉浩明, 牧 久恵, 駒嶺 穆)
生化学, **61** (5), 389-393 (1989)
128. イネ培養細胞における不定胚分化 (小沢憲二郎, 駒嶺 穆)
化学と生物, **27** (12), 765-766 (1989)
129. Establishment of a system of high-frequency embryogenesis from long-term cell suspension cultures of rice. (*Oryza Sativa L.*) (K. Ozawa and A. Komamine)
Theor. Appl. Genet., **77**, 205-211 (1989)

130. Changes in ultrastructure of golgi apparantus during the cell cycle in a synchronous culture of *Catharanthus roseus*. (S. Hirose and A. Komamine)
New Phytologist, **111**, 599-605 (1989)
131. Phase-specific polypeptides and poly(A)+ RNAs during the cell cycle in synchronous cultures of *Catharanthus roseus* cells. (H. Kodama, N. Kawakami, A. Komamine et al.)
Plant Physiol., **89**, 910-917 (1989)
132. High frequency and synchronous somatic embryogenesis, a useful system for crop improvement. (A. Komamine)
Food and Fertilizer Technology Center, Technical Bulletin No. 113, p1-4 (1989)
133. Regulation of secondary metabolism in relation to growth and differentiation. (A. Komamine, M. Sakuta, M. Hirose et al)
In: Primary and Secondary Metabolism of Plant Cell Cultures II. (ed. W.G.W. Kurz), Springer Verlag, 49-52 (1989)
134. Changes in the wall-bound glycosidase activities during the cell cycle in a synchronous cultures of *Catharanthus roseus*. (S. Amino and A. Komamine)
Z. Naturforschung. **44c**, 754-756 (1989)
135. 高等植物における同調培養系を用いた細胞周期の解析 (伊藤正樹, 駒嶺 穆)
バイオインダストリー, 7 (12), 27-34 (1990)
136. パーソナルコンピュータによる植物細胞の三次元再構〔方法と実際〕(藤原有仁, 川原良一, 駒嶺 穆)
組織培養, **16** (9), 336-340 (1990)
137. L- α -Aminooxy- β -phenylpropionic acid inhibits lignification but not the differentiation to tracheary elements of isolated mesophyll cells of *Zinnia elegans*. (E. Ingold, M. Sugiyama and A. Komamine)
Physiol. Plant., **78**, 67-74 (1990)
138. Differences in the composition the cell walls of two morphologically different lines of suspension cultured *Catharanthus roseus* cells. (K. Suzuki, S. Amino, A. Komamine et al.)
Plant & Cell Physiology, **31** (1), 7-14 (1990)
139. Characteristics of the inhibitory effect of 5-fluorodeoxy-uridine on cyto-diffentiation into tracheary elements of isolated mesophyll cells of *Zinnia elegans*. (M. Sugiyama, H. Fukuda and A. Komamine)
Plant & Cell Physiology, **31**(1), 61-67 (1990)

140. Accumulation of betacyanin in *Phytolacca americana* cells and of anthocyanin in *Vitis* sp. cells in relation to cell division in suspension cultures. (M. Hirose, T. Yamakawa, A. Komamine et al.)
Plant & Cell Physiology. **31** (2), 267-271 (1990)
141. Synthesis of protein and mRNA is necessary for transition of suspension-cultured *Catharanthus roseus* cells from the G1 to the S phase of the cell cycle. (N. Ohnishi, H. Kodama, A. Komamine et al.)
Physiol. Plant., **80**, 95-101 (1990)
142. Induction and repression of phenylalanine ammonia-lyase and chalcone synthase enzyme proteins and mRNAs in carrot cell suspension cultures regulated by 2,4-D. (Y. Ozeki, A. Komamine and Y. Tanaka)
Physiol. Plant., **78**, 400-408 (1990)
143. Detection of mRNAs correlated with proliferation of cells in suspension cultures of *Catharanthus roseus*. (H. Kodama, S. Ando and A. Komamine)
Physiol. Plant. **79**, 319-326 (1990)
144. Mechanisms of somatic embryogenesis in cell cultures —— Physiology, biochemistry and molecular biology. (A. Komamine, M. Matsumoto, M. Tsukahara et al.)
Progress in Plant Cellular and Molecular Biology (ed. H.J. J. Nijkamp, L.H.W. van der Plank and J. van Aartrijk), Kluwer Academic Publishers, 307-313 (1990)
145. Molecular aspects of the cell cycle in *Catharanthus roseus* synchronous cell division cultures. (H. Kodama, M. Ito and A. Komamine)
Progress in Plant Cellular and Molecular Biology (ed. H. J. J. Nijkamp, L. H. W. van der Plank and J. van Aartrijk), Kluwer Academic Publishers, 532-537 (1990)
146. Transdifferentiation of quiescent parenchymatous cells into tracheary elements. (M. Sugiyama and A. Komamine)
Cell Differentiation and Development, **31**, 77-87 (1990)
147. 不定胚分化における全能性発現 (駒嶺 穆)
学術月報, 44 (1), 57-66 (1991)
148. ニチニチソウ同調培養系の細胞周期における遺伝子発現 (伊藤正樹, 駒嶺 穆)
化学と生物, 29, 22-29 (1991)
149. 高等植物の細胞増殖と二次代謝の発現機構 (掛川弘一, 杉山宗隆, 駒嶺 穆)
化学と生物, 29, 70-72 (1991)
150. 高等植物における同調培養の誘導 (大西直人, 駒嶺 穆)
組織培養, 17 (9), 2-6 (1991)

151. 高等植物の細胞周期特異的遺伝子の単離と解析 (伊藤正樹, 児玉浩明, 駒嶺 穆)
組織培養 17 (9), 329-335 (1991)
152. 不定胚分化と遺伝子発現 (川原良一, 駒嶺 穆)
化学と生物, 29, 779-784 (1991)
153. ニンジン培養細胞系における不定胚分化 (川原良一, 駒嶺 穆)
植物バイオテクノロジーⅡ (現代化学増刊20) 東京化学同人出版, 216-221(1991)
154. Xylan synthase activity in isolated mesophyll cells of *Zinnia elegans* during differentiation to tracheary elements. (K. Suzuki, E. Ingold, A. Komamine et al.)
Plant & Cell Physiol., **32** (2), 303-306 (1991)
155. Isolation of genes that are preferentially expressed at the G1/S boundary during the cell cycle in synchronized cultures of *Catharanthus roseus* cells. (H. Kodama, M. Ito, A. Komamine et al.)
Plant. Physiol., **95**, 406-411 (1991)
156. Molecular cloning of the gene for plant proliferating-cell nuclear antigen (PCNA) and expression of this gene during the cell cycle in synchronized cultures of *Catharanthus roseus* cells. (H. Kodama, N. Ohnishi, A. Komamine et al.)
Eur. J. Biochem., **197** (2), 495-503 (1991)
157. Stimulation by 2,4-dichlorophenoxyacetic acid of betacyanin accumulation in suspension cultures of *Phytolacca americana*. (M. Sakuta, H. Hirano and A. Komamine)
Physiol. Plant., **83**, 154-158 (1991)
158. Polyamines and the cell cycle of *Catharanthus roseus* cells in culture. (H. Maki, S. Ando, A. Komamine et al.)
Plant. Physiol., **96**, 1008-1013 (1991)
159. Identification of a novel S-phase specific gene during the cell cycle in synchronous cultures of *Catharanthus roseus* cells. (M. Ito, H. Kodama and A. Komamine)
Plant Journal, **1** (2), 141-148 (1991)
160. 不定胚による個体再生 (川原良一, 小沢憲二郎, 駒嶺 穆)
植物分子・細胞工学マニュアル (講談社サイエンティフィク), 31-38 (1992)

161. 不定胚分化過程における遺伝子発現 (川原良一, 駒嶺 穆)
植物の分子生物学 (蛋白質核酸酵素臨時増刊), 37 (7), 1249-1256 (1992)
162. Establishment of synchrony by starvation and readdition of auxin in suspension cultures of *Catharanthus roseus* cells. (T. Nishida, N. Ohnishi, A. Komamine et al.)
Plant Cell, Tissue and Organ Culture, **28**: 37-43 (1992)
163. Mechanisms of somatic embryogenesis in cell cultures: Physiology, Biochemistry, and Molecular Biology. (A. Komamine, R. Kawahara, M. Matsumoto et al.)
In Vitro Cell. Dev. Biol. (Ed. T.A. Thorpe), Tissue Culture Association, 28P:11-14 (1992)
164. Regulation of DNA synthesis and cell division by polyamines in *Catharanthus roseus* suspension cultures. (R. Minocha, S.C. Minocha, A. Komamine et al.)
Plant Cell Reports **10**:126-130 (1991)
165. Mechanisms of Somatic Embryogenesis in Carrot. (R. Kawahara and A. Komamine)
Korean J. Plant Tissue Culture **18**: 339-344 (1991)
166. Mechanisms of somatic embryogenesis in plant cell cultures. (A. Komamine and R. Kawahara)
Agricultural Biotechnology (Ed. by C.B. You & Z.L.Chen), China Science and Technology Press (1992)
167. Mechanisms of somatic embryogenesis — Morphological, Physiological and Molecular Biological Aspects -- (A. Komamine and R. Kawahara)
In: Proceedings of the VII International Symposium in Conjunction with the Awarding of the International prize for Biology (Osaka), 101-112 (1991)
168. Effects of 2,6-dichlorobenzonitrile on differentiation to tracheary elements of isolated mesophyll cells of *Zinnia elegans* and formation of secondary cell walls. (K. Suzuki, E. Ingold, A. Komamine et al.)
Physiol. Plant., **86**, 43-48 (1992)
169. Observations of mitochondria and mitochondrial nuclei by double staining with rhodamine-123 and DAPI in synchronous cultures of *Catharanthus roseus*. (S. Hirose and A. Komamine)
Bot. Mag. (Tokyo), **105**, 405-411 (1992)

170. A gene family homologous to the S-phase specific gene in higher plant is essential for cell proliferation in *Saccharomyces cerevisiae*. (M. Ito, A. Yasui and A. Komamine)
FEBS Letters 301, 1: 29-33 (1992)
171. A gene expressed preferentially in the globular stage of somatic embryogenesis encodes elongation factor 1 α in carrot. (with R. Kawahara, S. Sunabori, A. Komamine et. al)
Eur. J. Biochem. (in press)